

ABSTRACT OF THE DISCLOSURE

A transmission apparatus has a function to switch a line with a redundant configuration comprising a working line and a protection line from the working line to the protection line in the event of a transmission-line failure on the working line. The transmission apparatus includes a cross-connect-classifying unit for inputting cross-connect information from an external source and classifying the information into cross-connect categories for each channel; a communication unit for gathering the cross-connect category of each signal-adding or signal-dropping transmission apparatus of a channel and node information identifying the signal-adding or signal-dropping transmission apparatus by communications with an adjacent transmission apparatus for each channel and a connection-implementation-classifying unit for classifying implementations of connection into appropriate connection categories in accordance with gathered cross-connect categories of other transmission apparatuses and the cross-connect category of the transmission apparatus employed in the station to create a table for each channel. Further the transmission apparatus includes a failure-reporting unit for transmitting information on a failure including node

information of the station, a failure-occurrence-
location-identifying unit for identifying the location of
occurrence of a failure from received information on the
failure, and a switching control unit for executing
control to switch a line based on a location of
occurrence of a failure identified by the failure-
occurrence-location-identifying unit and the table.